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*A*

(ii) activating the resultant nuclear transfer unit;  
(iii) culturing said activated nuclear transfer units until greater than the 2-cell developmental stage; and  
(iv) culturing cells obtained from said cultured NT units to obtain embryonic stem-like cells.

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*A<sup>2</sup>*

15. (Amended) The method of Claim 1, wherein the resultant embryonic stem-like cells are induced to differentiate.

*A<sup>2</sup>*

16. (Amended) The method of Claim 2, wherein the resultant embryonic stem-like cells are induced to differentiate.

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*A<sup>3</sup>*

18. (Amended) Embryonic stem-like cells according to the method of Claim 1.

*A<sup>3</sup>*

19. (Amended) Human embryonic stem-like cells according to the method of Claim 2.

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*A<sup>4</sup>*

21. (Amended) Human embryonic stem-like cells according to the method of Claim 4.

*A<sup>4</sup>*

22. (Amended) Human embryonic stem-like cells according to the method of Claim 6.

*A<sup>4</sup>*

23. (Amended) Human embryonic stem-like cells according to the method of claim 7.

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*A<sup>5</sup>*

32. (Amended) The method of Claim 1, further comprising a step (v) whereby a gene is inserted, removed or modified in said embryonic stem-like cells.

*A<sup>5</sup>*

33. (Amended) The method of Claim 32, wherein said gene encodes a therapeutic enzyme, a growth factor or a cytokine.

A<sup>6</sup> 35. (Amended) The method of Claim 32, wherein said gene is removed, modified or deleted by homologous recombination.

Kindly add the following new claims prior to further examination:

--51. The embryonic or stem-like cells of Claim 32.

52. The method of Claim 1, wherein said adult differentiated cell and said enucleated oocyte are phylogenetically dissimilar.

53. A method of producing an activated nuclear transfer unit capable of being cultured to a size of at least two cells, wherein said nuclear transfer unit comprises mitochondria from a species other than said adult differentiated cell, comprising:

A<sup>7</sup> (i) inserting a human or mammalian cell or cell nucleus from an adult differentiated cell of a first species into an enucleated oocyte of a second species under conditions suitable for formation of a nuclear transfer (NT) unit; and

(ii) activating the resultant NT unit so as to produce an activated nuclear transfer unit capable of being cultured to a size of at least two cells.

54. The method of Claim 53, wherein said activated nuclear transfer unit is capable of being cultured to 2 to 400 cells.

55. The method of Claim 53, wherein the adult cell inserted into the enucleated animal oocyte is a human cell, and the enucleated oocyte is obtained from an ungulate.

56. The method of Claim 55, wherein said ungulate is a bovine.

57. An activated nuclear transfer unit obtained according to the method of  
Claim 53.--